NEWSLETTER

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AUSTRALIAN SOCIETY FOR LIMNOLOGY

The Australian Society for Limnology is an association of over 400 people with professional or amateur interests related to Australian inland waters. Since its inception in 1961 the Society has played an important role in fostering limnological work in this country. The ASL promotes liaison between limnologists in academic, private and governmental institutions and has a vested interest in the conservation of aquatic and related resources. Annual congresses are held near centres of limnological interest, and the programme includes scientific sessions, field excursions and social activities.

The ASL produces a *Newsletter* with notes on activities, articles of general interest, book reviews and congress announcements; a *Bulletin* of original scientific papers and occasional *Special Publications*. A further publication is the *Directory of Australian Limnologists*.

Membership applications are welcomed; four classes of subscribing membership are available:

Ordinary members	$10.00 p.a.
Student members	$4.00 p.a.
Institutional members	$10.00 p.a.
Sustaining members	Fees on application

Members are entitled to receive the Australian Journal of Marine and Freshwater Research at the reduced rate of $12.50 p.a.

Membership subscriptions cover the period 1 July to 30 June but subscriptions for Aust J. mar. Freshwat Res. cover the period 1 January to 31 December.

Enquiries relating to membership should be addressed to:

Ian Campbell,
Secretary, ASL.,
c/- Department of Chemistry,
Caulfield Institute of Technology,
P.O. Box 197,
Caulfield East, Victoria,
Australia 3145.

ASL Executive 1980-81

President: Sam Lake

Past-President: Peter Tyler

Vice-President: Frank Burns

Secretary: Ian Campbell

Treasurer: Margaret Hart

Committee:
The Officers of the Society and:
Jenny Birchmore
Roger Croome
John Kirk
Richard Marchant
Alastair Richardson
Barbara Richardson
Robert White

Newsletter Editor:

R.W.G.White,
Department of Zoology,
University of Tasmania,
Box 252C, G.P.O.,
Hobart, Tasmania,
Australia 7001.

EDITORIAL

In his book review on page 10 of this Newsletter Ian Bayly again draws our attention to the present very high price of some books. He announced in a review he wrote for the last issue (18 (2) p.12) that he had stopped buying personal copies of scientific books because of the excessive prices being asked by publishers. On page 8 of this Newsletter I give notice of a book which should have wide appeal but for the fact it costs $390.00! This is a book I would have very much liked to have purchased but its price puts it completely beyond my reach. Admittedly, it does have 2182 pages but this still works out at 17.87¢ per page.

Even for cheaper texts some aspects of pricing policy seem to have gone haywire. The second edition of Bill Williams' "Australian Freshwater Life" costs $14.95 for the soft-backed edition but $29.95 for the hard-backed one. Both have a sewn saddle binding to each signature; the only difference is the material of the cover: soft in one, hard in the other. Are we to believe that it costs $15.00 just to have board covers? Just how expensive is binding board these days? Does it really cost as much to substitute a hard cover for a soft one as all the other production costs put together? These production costs include author's fees, setting, proof reading, lay-out, printing, binding, distribution and mark ups. Or is this yet another case of a publisher inflating the price of the hard-backed edition because this is the form usually purchased by libraries? And libraries have limitless funds for book purchases - don't they?

It strikes me that book publishers are in danger of being caught in a vicious cycle of spiralling prices and declining sales. If this continues it can only lead to the disappearance of the printed book as we presently know it. How long before anything but the most popular student text is available only on micro-fiche? How long before a quiet evening at home browsing a few books will involve making sure you remember to borrow the department's micro-fiche reader?

We are now in a situation where individuals are not buying books. And no longer are libraries "automatically" purchasing books as they are published.

I urge publishers to review their pricing policies. They might also rethink some of their productions. I am presently preparing a review of a book dealing with the ecology of a mid-European lake. The book contains a large number of colour prints which must have added greatly to the cost of an already expensive book but add little to the information it conveys. For example, does it really need an out-of-focus snapshot of a cow standing in shallow water (it could have been taken almost anywhere) to convince the reader than an earlier statement, that dairy cattle are kept in the catchment, is correct? Publishers should aim to achieve a situation which maximises sales, not deters them. Perhaps those members of A.S.L. directly involved with publishers as authors and editors should use their influence to help book buyers as a whole. Otherwise, before long, the only way they will have the undoubted pleasure of seeing their name in print is on the screen of a micro-fiche reader!

Robert White

NEWS AND VIEWS

Subscriptions

Most members have now paid their 1980/81 subscriptions. If you are one of the few people who have not yet sent the Secretary your subs. please do so as soon as possible. Please note that it is now too late to take out a subscription for the 1981 volume of Australian Journal of Marine and Freshwater Research.

A.S.L. Annual Conference, Narooma, N.S.W.

By the time you see this Newsletter you should have received full information on the Narooma Conference. Please ensure your booking form is returned promptly with a cheque of the appropriate fees.

2nd International Symposium on the Interactions between Sediments and Freshwater

This symposium will be held from 14-20 June 1981 at Queen's University, Kingston, Ontario, Canada.

The following topics are the themes for the symposium and will be covered by the plenary sessions:

1. Summary of sediment dynamics and distribution in fluvial and lacustrine environments.

2. Land use effects on sediment yields and quality.

3. Sediments in mass balance models, including total loadings.

4. Sediments as concentrating mechanisms of natural and anthropogenic, organic and inorganic materials.

5. Release mechanisms, and transfer to bio-system, from bed and suspended solids.

6. Short and long-term dating methods, spatial and temporal consistency, bioturbation and diffusion.

In addition, the following additional topics may be covered by submitted papers:

a) Dredging and disposal

b) Wetlands

c) Nuclear and solid waste loss/disposal/storage, including mine tailings and landfill

d) Physical, chemical composition as controls on geochemical properties

of deposited materials

e) Irrigation and long fluvial transport

f) Flocculation processes

g) Atmospheric loadings, and effects.

Further information from:

Sediment/Freshwater Symposium,
Queen's University,
Kingston, Ontario,
CANADA K7L 3N6

WANTED - Chironomids commensal on Mussels

Jon Martin (Genetics Department, Melbourne University) would appreciate hearing from any person who may have come across chironomid larvae under the mantle of freshwater mussels. The larvae of Xenochironomus canterburyensis (Freeman) have been reported as commensals of Hydridella menziesi (Gray) in New Zealand and, while the adults have been collected along the Murray River between Renmark and Mildura, no reports of the larvae from Australia are known to Jon.

Jon's address is: Genetics Department, University of Melbourne, Parkville 3052.

WANTED - Mayflies and Nymphs of Caddis-flies

John Dean and David Cartwright are currently working on the taxonomy of mayflies of the family Leptophlebiidae (adults and nymphs), and free-living Trichoptera larvae of the families Hydrobiosidae, Philopotamidea, Stenopsychidae, Ecnomidae, Polycentropodidae and Hydropsychidae. At present they are concentrating on the Victorian fauna, and have bred out most of the species in these groups. Additional material is however required, especially from elsewhere in Australia.

A limited identification service can be provided, although material from states other than Victoria and material of families where adult taxonomy is inadequate in many cases can only be identified to genus. They are however maintaining voucher collections, so that a consistent system of designating species is available.

Any material would be greatly appreciated, and can be forwarded to them at:

M.M.B.W. Laboratories,
Box 4342,
G.P.O. Melbourne,
Victoria 3001

WANTED - Rotifers

Russell Shiel and Walter Koste are revising the Australian Rotifera. They

would appreciate receiving material from anywhere in Australia. Preferably, samples should be collected with a 35 µm mesh net. Samples should be sent to

R.J. Shiel,
C/- Department of Zoology,
The University of Adelaide,
G.P.O. Box 498,
Adelaide,
South Australia 5001.

XV Pacific Science Congress

The XV Pacific Science Congress is to be held at the University of Otago, Dunedin in February 1983. There will be a Freshwater Sciences Section of the Congress and the following topics are being proposed:

1. Changes in freshwater ecosystems
2. The biology and systematics of freshwater macrophytes
3. Structure and function of stream and river ecosystems
4. Physiology, production and population dynamics of freshwater algae
5. Freshwater fisheries in the Pacific Basin
6. The biology and systematics of freshwater zooplankton in the Pacific Basin
7. Hydrology and mass transfer of substances in fresh water
8. Aquatic microbiology: lake benthos and sediment metabolism.

Further details from:

Dr. Donald Scott,
Department of Zoology,
University of Otago,
Box 56, Dunedin,
New Zealand.

On the Move!

Patrick de Deckker has moved from the Department of Zoology, University of Adelaide to the Department of Biogeography and Geomorphology, A.N.U., P.O. Box 4, Canberra, A.C.T. 2600.

Roger Croome has moved from the River Murray Commission to the Department of Botany, University of Tasmania, Box 252C, G.P.O., Hobart, Tasmania 7001.

Richard Norris has left the Survey Section of the National Museum of Victoria to go to Canberra C.A.E., P.O. Box 1, Belconner, A.C.T., 2616.

Richard Marchant has shifted south from the Northern Territory to the Survey Section of the National Museum of Victoria, 71 Victoria Crescent,

Abbotsford, Victoria 3067.

A.S.L. Publications

Is your collection of A.S.L. Publications incomplete? The Secretary has good stocks of all Bulletins and Special Publications. See page for details.

Ecological Biogeography of Australia

In 1959 volume 8 of 'Monographiae Biologicae' was published under the title'Biogeography and Ecology in Australia'. The development of evolutionary ecology in Australia increased so rapidly that by the mid 1960's this volume was both out of date and out of print. Now, 22 years later, the new 'Ecological Biogeography of Australia' is published, again under the editorship of Allen Keast, with contributions by 62 experts in the various fields. The present edition is seen as a review of the Australian biota, its origins, evolution and adaptations. The uniqueness of the Australian flora and fauna, with its fifty million years of evolution in isolation, make it a particularly interesting subject both as an end in itself and in terms of what it can reveal about life processes and evolution in general.

There are eight sections with Part 4 being edited by Bill Williams and entitled 'Biogeography of Inland Waters'.

The new edition is a massive 2182 pages costing $390.00!!!! Obviously this work is now well out of the financial reach of individuals and, I suspect, many libraries.

ASL PUBLICATIONS

The Society presently holds large stocks of most issues of the Bulletin and the Special Publications. These represent funds which are unavailable for other purposes (like delaying the inevitable increase in subscription rates!) If your collection of A.S.L. Publications is incomplete why not order the missing issues today? Orders, with cheques made payable to Australian Society for Limnology, should be sent to the Secretary at the address given on Page 2 of this Newsletter.

Bulletin of the Australian Society for Limnology

All issues are available at $1.00 each or $5.00 for the complete set plus 50¢/copy or $2.00/set postage.

Nos. 1 - 2 (single issue)	1969-70
No. 3	1970
No. 4	1971
No. 5	1973
No. 6	1975
No. 7	1980

Special Publications

No. 1 A key to the Genera of Crustacea of Australia. Edited by I.A.E. Bayly, J.A. Bishop and I.D. Hiscock. 1967. 37 pp. Price $1.25 plus 50¢ postage.

No. 2 An Annotated Key to the Stonefly Nymphs (Pleoptera) of Victoria. By H.B.N. Hynes. Undated. 63 pp. Price $2.00 plus 50¢ postage.

No. 3 Aquatic Research in Southern Queensland. Edited by W.D. Williams. 1979. 99 pp. Price $3.00 plus $1.00 postage.

No. 4 Morphometric Analysis of Tasmanian Freshwater Bodies. By J.A. Petersen and J.E. Missen. 1979. 115 pp. Price $4.50 plus $1.00 postage.

BOOK REVIEWS

ZOOPLANKTON COMMUNITY ANALYSIS by W.M. Lewis (1979) 163 pp. Springer-Verlag, New York. About $26.00. Price per page: 15.9¢*

Reviewed by I.A.E. Bayly

Although it is not obvious from the title, this small book represents a monograph on the zooplankton of Lake Lanao on Mindanao at the southern end of the Philippines. Much of this work represents a skillfully written and presented summary of a series of papers published by the author between 1973 and 1978. Lewis writes well, despite a peculiar tendency to avoid the use of pronouns. The short chapters tend to make for fairly painless reading.

Integration of Lewis' own findings with the total body of existing knowledge of freshwater zooplanktonic communities (a rather voluminous literature!) is very good, and it is this that makes Lewis' account of much greater general interest than might be thought from my opening sentence. This is equivalent, I suppose, to my saying that I consider the very general title of the book defendable. It represents a beautifully lucid model for anyone setting out to make a long term comparative and comprehensive study of the zooplankton of a lake.

Parts of the book will be of interest to limnologists other than planktonologists and, indeed, to general ecologists. Thus keen students of latitudinal gradients in diversity and species richness (such as my colleague Sam Lake) will note with interest the following statements:

(1) (p.9) "Neither Lake Lanao nor tropical lakes in general show any evidence of being richer in phytoplankton species than lakes of the temperate zone."
(2) (pp.19-20) "... the number of reasonably abundant species in tropical [zoo]plankton environments at an instant in time is no greater and may even be less than in comparable lakes at higher latitude, and ... the composite annual numbers of species which reach detectable abundance may well be considerably greater in temperature [sic, = temperate!] lakes than in tropical ones."
Much of the material in the final (16th) chapter will also be of considerable

* From now on I shall give the price per page of reviewed books to enable members to note movements in the true cost of books. R.W.

interest to all ecologists interested in community structure and the functioning of ecosystems.

Of particular interest is Lewis' demonstration that fixed or temporally stable horizontal variations occur in the structure of the zooplankton community in Lake Lanao. This is apparently explicable by the following sequence of events. Fish predation falls heavily on the advanced stages (4th instars) of Chaoborus. The latter are better able to escape fish in the central areas of the lake because a longer water column enables them to occupy low-oxygen areas from which fish tend to be excluded (lower light intensities at greater depths may also have some significance). Population densities of large chaoborids are thus greater in the central areas of the lake where, correspondingly, predation pressure on the smaller, herbivorous, zooplankton is greatest. The mean population densities of the latter are thus significantly greater in the peripheral areas of the lake. Hitherto horizontal variation in densities have been considered almost entirely from the ephemeral viewpoint.

Another innovation is Lewis' synthesis of the Edmondson and Galkovskaya methods for calculating rotifer production.

Some very surprising results emerge from the attempt by correlation analysis to assess the relative importance of both higher taxa and individual species of phytoplankton as food for herbivores zooplankton. Thus Lewis notes (p.112), "The complete absence of significant relationships between the herbivore production and abundance of green algae ... is quite unexpected in view of the large contribution of green algae to the total biomass." And again (p.117), we find, "The failure of very many common green algal species to show any significant relationships at all to herbivore production is an outstanding feature of the results and is probably of great ecological significance." A further surprise is the finding (p.112) of a strong association of herbivore production with the abundance of bluegreen algae which have often been regarded as a poor source of food for planktonic herbivores.

The conclusion (p.145) that in Lake Lanao grazing is much less important than light, nutrients, and turbulence in determining phytoplankton community composition may not be valid for all inland waters. Thus there is evidence that in some salt lakes (e.g. Anderson, 1958, Limnol. Oceanogr. 3, 65) the grazing of zooplankton exerts a dominating influence on the population density

of phytoplankters.

There is a good 2½ page summary of the whole book at the end of the last chapter.

As I intimated in the last number of the Newsletter, this small book has rather a large price (I paid $25.92). However, I believe that it is a high quality product which all serious zooplanktonologists should have on hand.

FIELD GUIDE TO THE NON-MARINE MOLLUSCS OF SOUTH-EASTERN AUSTRALIA

Brian J. Smith and Ron C. Kershaw. 285 pp. Australian National University Press, Canberra. Soft cover $9.95. Price per page: 3.5¢.

Reviewed by A.M.M. Richardson.

This book has quite modest aims which in general it achieves well. In their preface, the authors state the limitations of their project: geographical (south of 33° of latitude), ecological (though 'non-marine' is treated generously, with the inclusion of the Ellobiidae and Amphibolidae), and taxonomic, being an intermediate between species lists and a fully authoritative revision. Its aim is to allow the non-specialist student to identify non-marine molluscs as far as is currently possible.

The user of this book should bear these limitations in mind and be prepared for a complete absence of resolution within some genera, such as Beddomeia and Rivisessor. Although the taxonomy is conservative, of necessity, indications are usually given where more than one species occur under a single specific name, for example, in the Sphaeriidae.

Before turning to the identification keys, the authors have provided a useful guide to the general biology of the Mollusca, with notes on their classification, morphology, ecology and zoogeography, as well as the techniques needed for collection and preservation. The authors should be applauded for repeating most of the diagrams from the morphological section in the body of the keys, rather than forcing the user to thumb through to the front continually to remind his or herself of the difference between fusiform and pyriform.

The book provides an initial key to families, followed by a treatment of

the fauna, family by family. In the larger families a key to genera and species is provided. In all cases, the keys are well-illustrated with explanatory diagrams adjacent to the couplets in which particular features are used. Features used in the key are confined almost entirely to those visible without dissection through a 10X lens. The standard of illustration is high overall; each species or species group is figured and the drawings of these notoriously difficult-to-represent animals are excellent.

The quality of production of the distribution maps which accompany each species account is not nearly so good. In many cases the hatching designed to represent the range does not fill the outline drawn for it, and, in at least one case (Coxiella striata), the distribution in the text does not correspond to that shown on the map. It increases the paranoia of this Tasmanian reviewer, that it is the most southerly part of the range which has been omitted. In at least one other case (Map 45), some labelling has been omitted from a map.

It is a pity that the usefulness of this volume should have been reduced by some poor features of the layout. I found the keys difficult to read at times because of the absence of any separation between the couplets. In several places each half of all the couplets on a page begins with the same word, and there are no blank lines between couplets. Indeed, the halves of a couplet are often separated by a diagram. In these circumstances, it is easy to take the wrong pair of lines together.

Further confusion springs from the insertion of a few lines of key in the body of the text to separate families. These have been placed apparently within the area allotted to a family. Thus the key to separate the Truncatellidae from the Hydrobiidae apparently lies within the text on the Viviparidae.

Merely irritating is the frequent separation of distribution maps from the species account and drawing. It would have been preferable to have adopted a species per page format.

There are many errors which should have been eliminated during proofreading. The frequent Potomopyrgus for Potamopyrgus, for example. And surely the plural of operculum is opercula, not operculae?

These errors, however, should not deter potential users of the book, since they are far outweighed by its usefulness. The existence of this up-to-date

field guide will not only enable identification of mulluscs to be made by many more people, but also stimulate further work on the taxonomy and ecology on this different, but very important, component of our fauna.

AJMFR CONTENTS

From this issue the Society will be publishing the contents of current issues of the Australian Journal of Marine and Freshwater Research.

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AGM MINUTES

UNCONFIRMED MINUTES OF 19TH ANNUAL GENERAL MEETING OF THE AUSTRALIAN SOCIETY FOR LIMNOLOGY held at Central Primary School, Queenstown, Tasmania on 11 May, 1980.

The meeting opened at 10.30 a.m.

1. ADOPTION OF AGENDA:

The Agenda proposed by the Executive Committee was accepted.

2. APOLOGIES:

Apologies were received from the following:

F. Hall, W. Williams, B. Hart, B. Bowles, D. Pollard, D. Mitchell, R. Buckney, Saunders, K. Walker, G. Bennison, P. Greenaway, J. Wharton, Hodgkin.

3. ACCEPTANCE OF MINUTES:

The Minutes as published in the Newsletter (Vol. 17, No. 1) were accepted.

4. CORRESPONDENCE:

The correspondence was tabled.

5. PRESIDENT'S REPORT:

The President reported that, for the second year in a row, the Society had lost a member under tragic circumstances - Michael Steane was killed in a mountain climbing accident in New Zealand during 1980. Apart from that, 1979-80 had been a good year for the Society.

Both Bill Williams and Jorg Imberger had published books during the year. Three conferences on limnological topics had been well attended by members, these being the SIL Salt Lakes Conference in Adelaide, the Antarctic Limnology Conference in Melbourne and the Jabiru Workshop on Tropical Limnology. A number of members also attended the 50th Anniversary Symposium on the FBA in the U.K. A Victorian Chapter of the Society had also been formed, meeting bi-monthly in Melbourne.

Finally, the President noted that it was good to see the Conference being so well attended by undergraduate students.

6. SECRETARY-TREASURER'S REPORT:

The Secretary-Treasurer reported that the year had been most successful. With the Society's assets remaining in a healthy state, there was no need to increase membership fees, although it was anticipated that CSIRO would raise the subscription for AJMFR from $7.50 to $10 for the 1981 subscription year.

Members unfinancial for more than two years were now being deleted from the membership lists; however, a pleasing increase in new members had meant that there was only a slight drop in membership numbers for the year. The number of unfinancial members was slightly higher than for 1978/79.

The Secretary-Treasurer thanked Ian McKelvie, Helen Clausen, Luisa Macmillan, Jenny Smith and Peter Breen for their assistance with mail-outs, and Tom Edge and Margaret Hart for driving the computer and assisting with the book work respectively.

7/ MEMBERSHIP REPORT:

The Secretary-Treasurer reported that the current membership statistics were as follows:

	1978/79	1979/80
Financial	259	231
Unfinancial	83	98
Institutional	64	61
New Members	38	35
Resignations	2	0

The Secretary-Treasurer noted that the discrepancy in numbers was due to members with subscriptions more than three years overdue being deleted from the list.

8. FINANCIAL STATEMENT:

Financial Statement follows as Appendix 1.

The reports presented under items 6, 7 and 8 above were accepted in toto.

9. AUDITOR'S REPORT:

The Auditor reported that the accounts were acceptable as a true and accurate record of the Society's financial affairs, and commended the valuable performance of the Secretary-Treasurer. The Auditor's report was accepted.

10. EDITORIAL COMMITTEE REPORT:

Dr. Bayly reported that the 7th issue of the Bulletin had recently been circulated to members.

11. NEWSLETTER EDITOR'S REPORT:

Dr. Lake reported that three editions of the Newsletter had been produced in the preceding year, and that the thickness had considerably increased.

12. JOLLY AWARD COMMITTEE REPORT:

The Jolly Award was made to Dr. P.S. Lake.

Dr. Bayly, in announcing the award, spole of Dr. Lake's contributions in the areas of research, and teaching of limnology at both the graduate and undergraduate levels in Australia.

13. VENUE FOR THE 20TH CONGRESS:

A number of possible sites were discussed, including Mt. Gambier (S.A.), Canberra (A.C.T.) and the South Coast of N.S.W. It was decided that N.S.W. South Coast or Canberra area were the most appropriate, and it was left to the Executive to select a specific location.

14. EXECUTIVE COMMITTEE:

The following office-bearers were elected unopposed:

President	Sam. Lake
Vice-President	Frank Burns
Secretary-Treasurer	Ian Campbell

Committee Members:

Jenny Birchmore, Roger Croome, Margaret Hart, John Kirk, Richard Marchant, Alistair Richardson, Barbara Richardson, Rob. White.

15. HONORARY AUDITOR:

Ian Hiscock was elected Honorary Auditor unopposed.

16. PROJECT AQUA:

Ian Campbell moved that, in view of the delay in the publication of the Heritage Commission List by the Australian Government, the ASL publish a provisional list of aquatic sites recommended for conservation in the Newsletter, to be followed by a firm list after comment had been received on the provisional list. The motion was seconded by Luisa Macmillan, who agreed to act as coordinator for the listing.

17. OTHER BUSINESS:

Treasurer:

Bob White foreshadowed a motion to the next Annual General Meeting to alter the Constitution of the Society to allow separate Secretary and Treasurer positions.

Student Prize:

It was moved by Ian Bayly, seconded by Bob White, that:

The Australian Society for Limnology establish a student prize to be awarded for the best student paper presented at the Annual Congress. The Award should be open to students up to 18 months after submitting their theses. The selection committee for the student prize should be appointed by the Executive Committee immediately prior to each Annual Congress, to allow the Executive to take into consideration the material to be presented in the papers.

In the discussion, it was recommended that students be required to submit an abstract before the Congress, and that judging should be based on content of the paper as well as presentation. It was also agreed that the motion should be regarded as a set of guidelines by the Executive rather than a rigid prescription, and that the prize should initially be a book prize to the value of about $50.

Cost of Congress to Students:

After some discussion, there was general consensus that students should not be directly subsidised to attend Congress, but that the cost of the Congress to participants should be kept as low as possible, and that organising committees should pay particular attention to the provision of low cost accommodation.

Timing of Congress:

Luisa Macmillan suggested that February may be a more appropriate time to have the Congress. It was agreed that a postal vote should be held, to determine whether members would prefer a February or May date.

Meeting closed 11.50 A.M.